

IN THE CLAIMS:

By this amendment, claims 30-62, which are the subject of the restriction requirement of paper 20040712, remain cancelled without diminution or disclaimer of the indicated subject matter. Applicants note the right of the Applicants to amend the canceled claims back into the application if a bridging claim is found allowable (MPEP§ 809.02) and to file any divisional and/or continuation applications in accord with 37 C.F.R 1.53(b) and MPEP§§ 201.11, 201.06(c).

Claims 1-28 and 64-65 stand currently amended and claim 63 is cancelled. This listing of claims will replace all prior versions, and listings, of claims in the application:

CLAIMS LISTING:

1. (Currently Amended) A multiple battery ~~system~~apparatus operating an electrical system connected between a system positive terminal and a system negative terminal, the apparatus comprising:

a main battery having a main positive output coupled to an at least one switching device and a main negative output;

at least one standby battery having an at least one standby positive output coupled to the at least one switching device and an at least one standby negative output coupled to the electrical system negative terminal; and

a main electrical circuit comprising a coupling of ~~a common~~the system positive terminal with an at least one switching device, the at least one switching device having at least two operating positions to selectively and exclusively couple either the main or the at least one standby battery positive output to the ~~common~~system positive terminal to start and operate the electrical system;

wherein in the a-first operating position of the at least two operating positions provides electrical charge to power is provided exclusively by the main battery at startup of the electrical system and the main battery is recharged by the electrical system and recharges an at least one one-way charging circuit receives electrical power from the electrical system, the at least one one-way charging circuit simultaneously recharging the at least one standby battery without permitting it to be engaged to operate the vehicle or electrically couple to the main battery; and

wherein in the second operating position of the at least two operating positions the main battery is electrically isolated from the at least one standby battery and the at least one standby battery exclusively provides electrical power to the electrical system at startup; and by coupling the common positive terminal to the main positive output and an at least one one-way charging circuit and operates the electrical system from the main battery; and

a controller coupled to the main electrical circuit and switching said at least one switching device based on input from an at least one sensor.

2. (Currently Amended) The multiple battery systemapparatus of claim 1, wherein in the first-second operating position of the at least two operating positions that couples the common positive terminal to the main positive output of the main battery and recharges through an at least one one-way charging circuit, the at least one one-way charging circuit is also coupled to the common positive terminal of the electrical system and is coupled to the at least one standby positive output on the at least one standby battery starts and is

recharged by the electrical system while the main battery is electrically isolated from the at least one standby battery.

3. (Currently Amended) The multiple battery systemapparatus of claim 21, ~~further comprising a~~wherein in the second operating position of the at least two positions wherein the ~~common-system~~ positive terminal is coupled directly to the standby positive output.

4. (Currently Amended) The multiple battery systemapparatus of claim 31, wherein the main battery is electrically isolated from the at least one standby battery and the electrical system in the second operating position of the at least two operating positions of the at least one switching device and the at least one standby battery provides electrical power at startup and during operation of the electrical system.

5. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein only the coupling of the positive output of the main battery and the positive output of the at least one standby battery are switched by the switching device.

6. (Currently Amended) The multiple battery systemapparatus of claim 31, wherein the second operating position of the at least two operating positions electrically isolates the main battery from the electrical system and introduces only the at least one standby battery.

7. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the controller further comprises an at least one indicator element.

8. (Currently Amended) The multiple battery systemapparatus of claim 7, wherein the at least one indicator element is at least one of a klaxon, a horn, a light, a plurality of lights, an LCD panel, a simulated human voice, a human voice, a light emitting diode, a plurality of light emitting diodes.

9. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the at least one indicator element is a plurality of indicator elements having at least one of a red, orange, green, or amber color.
10. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the battery system further comprises a battery housing with a main battery compartment containing the main battery and an at least one standby battery compartment containing the at least one standby battery.
11. (Currently Amended) The multiple battery systemapparatus of claim 10, wherein the main battery compartment is located atop the at least one standby battery compartment.
12. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the main battery compartment is located aside the at least one standby battery compartment.
13. (Currently Amended) The multiple battery systemapparatus of claim of claim 3, wherein the one-way charging circuit comprises an at least one one-way charging diode.
14. (Currently Amended) The multiple battery systemapparatus of claim of claim 13, wherein the at least one one-way charging diodecircuit further comprises an at least one silicon rectifier.
15. (Original) (Currently Amended) The multiple battery systemapparatus of claim 13, wherein the at least one one-way charging circuit further comprises an at least one Silicon Controlled Rectifier (SCR).
16. (Currently Amended) The multiple battery systemapparatus of claim 15, wherein the at least one Silicon Controlled Rectifier (SCR) is coupled to the controller and disables the coupling with the at least one standby battery upon receiving a signal from the controller.

17. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the at least one standby battery comprises a single standby battery.

18. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the at least one battery comprises a plurality of standby batteries.

19. (Currently Amended) The multiple battery systemapparatus of claim 15, wherein the at least one sensor further comprises an at least one of: an at least one main battery voltage sensor, an at least one main battery amperage sensor, an at least one standby battery voltage sensor, an standby battery amperage sensor, an at least one switch position sensor.

20. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the controller further comprises at least one of: an at least one microprocessor, an at least one signal processor, an at least one set of lookup tables, an at least one memory device, an at least one security protocol/encryption element, and an at least one indicator element.

21. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the controller is a wireless controller system.

22. (Currently Amended) The multiple battery systemapparatus of claim 21, wherein the wireless controller system further comprises a wireless controller, a wireless transceiver, and an input device.

23. (Currently Amended) The multiple battery systemapparatus of claim 22, wherein the input device is a wireless input device and further comprises an at least one indicator element.

24. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the controller is a network interfaceable controller, the network interfaceable controller further comprising a network interface and transceiver.

25. (Currently Amended) The multiple battery systemapparatus of claim of claim 24, wherein the network interfaceable controller is in communication with a Network Operations Center (NOC) via a network.

26. (Currently Amended) The multiple battery systemapparatus of claim 25, wherein the network interfaceable controller couples to and communicates with the at least one switching device to detect the position of the at least one switching device and selectively engages the at least one switching device based on the input of at least one of an at least one main battery voltage sensor, an at least one main battery amperage sensor, an at least one standby battery voltage sensor, and an at least one standby amperage sensor.

27. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the controller includes a trigger on the controller that signals the controller to periodically change the switch position of the at least one switching device so as to discharge the at least one standby battery in the second operating position of the at least two operating positions for ~~short~~ periods of time and then switches back to the first operating position of the at least two operating positions.

28. (Currently Amended) The multiple battery systemapparatus of claim 26, further comprising an at least one VI sensor.

29. (Currently Amended) The multiple battery systemapparatus of claim 3, wherein the multiple batteries are part of an at least one of a six-volt, a twelve-volt, a fourteen-volt, and a twenty-four volt battery electrical system.

30-63. CANCELED

64. (Currently Amended) The multiple battery systemapparatus of claim 130, wherein in the second of the at least two operating positions, the main battery and the one-way

charging circuit are isolated and the standby battery is engaged to operate the electrical system.

65. (currently amended) A multiple battery ~~system~~apparatus operating an electrical system:

a common positive terminal and a common negative terminal coupled to the electrical system;

an at least two batteries, each of the at least two batteries having a positive output and a negative output;

an at least one switching device with at least two operating positions, the at least one switching device switching the common positive terminal in a first operating position of the at least two operating positions to one of the positive outputs of the at least two batteries, preventing current flow from any of the remaining at least two batteries to the common positive terminal;

a one way charging circuit charging at least one of the remaining at least two batteries not coupled to the common positive terminal in one of the at least two operating positions;

a second operating position of the at least two operating positions wherein the switching device switches the common positive terminal to the positive output of at least one of the remaining at least two batteries not previously coupled to the common positive terminal, preventing current flow from any of the remaining at least two batteries or the previously coupled at least two batteries to the common positive terminal; and

a controller to operate the at least one switching device and to switch between the at least two operating positions based on inputs from an at least one sensor.